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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,751	11/28/2001	Motohiko Sakamaki	111222	8650

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EXAMINER	
NGO, HUYEN LE	
ART UNIT	**PAPER NUMBER**
2871	

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/994,751	SAKAMAKI ET AL.	
	Examiner	Art Unit	
	Julie-Huyen L. Ngo	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed on November 11, 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material, which is not supported by the original disclosure, is as follows:

In the amended claim 8, the recitation calling for ***"an adhesive property of the surface of the at least one spacer opposing another substrate is lower than an adhesive property of the substrates"*** constitutes new matter. The original disclosure as filed and particularly the portion of the specification (p. 18, lines 14-19) pointed out by the Applicant in the response to the previous Office action states that: ***"As measures to remove color material particles attached on the upper surface of the spacer or to prevent them from attaching thereon, for example, setting the adhesive property of the opposed surface lower than that of the second substrate."*** This means only one substrate NOT both substrates.

Applicant is required to cancel the new matter in the reply to this Office Action.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1 and 7 recite "***while maintaining a predetermined amount of the plurality of color material particles distributed on the at least one of the substrates, superimposing another of the substrates thereon.***" The specification fails to sufficiently disclose how the amount of the plurality of color material particles distributed on the at least one of the substrates is maintained, and how to superimpose another of the substrates thereon at the same time (while) as alleged by Applicant.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the last clause of claims 1 and 7, the recitation calling for ""***while maintaining a predetermined amount of the plurality of color material particles distributed on the at least one of the substrates, superimposing another of the substrates thereon.***" can be construed that the plurality of color material particles are distributed on more than one of the substrates that is both **of the substrates**, than which substrate is considered to be the substrate that is to be superimposed with the "***another of the substrates,***" and which substrate is the "***another of the substrates"?***

All claims that are depended from the above-mentioned claims and are not specifically discussed above are rejected as bearing the defects of the claims from which they depend.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamio et al. (US6154265A).

Kamio et al. teach (col. 45, line 52 to col. 48, line 24, col. 61 lines 15-27; and Figs. 16-19) an image display medium and a method of manufacturing said image display medium comprising:

(Claims 1 and 7)

- providing substantially flat substrates 122a/122b, one of the substrate having at least one spacer 121 disposed thereon;
- disposing a plurality of color material particles (dye) distributed substantially uniformly on one/first of the substrates 122b; while maintaining a predetermined amount of the plurality of color material particles distributed on said one substrate
- superimposing another/second substrate 122a thereon
- fixing the substrates to one another using the at least one spacer

wherein

(Claim 12)

- the another/second substrate being superimposed with the one/first substrate with the at least one spacer there between such that a substantially contact distance is maintained between the substrates; an
- the plurality of color material particles are disposed between the substrates, and the spacer comprises a shape that tapers toward the side thereof facing the first flat substrate.

Claims 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. (US6099630A).

Kobayashi et al. teach (Fig. 4) a method of manufacturing an image display medium comprising the steps of:

- providing substantially flat substrates, one of the substrates having at least one spacer disposed thereon, the substrates being fixable to one another using the at least one spacer interposed between the substrates;
- disposing a plurality of color material particles (dyes) on at least one of the substrates; while maintaining the color material particles on the at least one of the substrates,
- superimposing the substrates such that substantially no color material particles are disposed on a surface of the at least one spacer opposing one of the substrates;
- fixing the substrates to one another using the at least one spacer.

wherein an adhesive property of the surface of the at least one spacer opposing the one of the substrates is lower than an adhesive property of another of the substrates according to claim 8.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 7 and 9 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. US 20020050976 A1 of Yamaguchi et al.,

which has at least one common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

Yamaguchi et al. teach (Fig. 4) a method of manufacturing an image display medium comprising the steps of:

- providing substantially flat substrates, one of which having at least one spacer disposed thereon, the substrates being fixable to one another using the at least one spacer interposed between the substrates;
- disposing a plurality of color material particles on at least one of the substrates; while maintaining the color material particles on the at least one of the substrates,
- superimposing the substrates such that substantially no color material particles are disposed on a surface of the at least one spacer opposing one of the substrates;

- fixing the substrates to one another using the at least one spacer.
- removing the color material particles from the surface of the at least one spacer opposing the one of the substrates by vibrating the at least one spacer (paragraph 7, "removing the colored particles from the display surface in the non-image area to display the white color of the white liquid" where the non-image area includes spacers) according to claim 9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-6, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamio et al. (US6154265A) as applied to claim 1 above and further obvious as follow:

Kamio et al. teach further teaches (Fig. 11, the fourth embodiment) a method of manufacturing an image display medium comprising the steps of:

(Claims 3 and 10)

- disposing the plurality of color material particles comprises the sub-steps of: dispersing the color material particles by spraying in a gas or air; thereafter supplying the color material particles to the at least one substrate

(Claim 5)

- disposing the plurality of color material particles comprises the sub-steps of: accommodating a predetermined quantity of the color material particles in a receptacle; thereafter supplying the color material particles from the receptacle to the at least one if the substrates

Kamio et al. further teach (Fig. 4, the first embodiment, col. 38 lines 66-67) a method of manufacturing an image display medium, the method comprising the steps of:

(Claims 4 and 11)

- disposing the plurality of color material particles comprises the sub-steps of: dispersing the color material particles in a liquid; thereafter supplying the color material particles to the at least one substrate (the resins is used in a form of solution by using a hydrophilic solvent, such as water or alcohol, providing a relatively-high surface energy, singly or in combination).

Kamio et al. further teach (Figs. 12A-H, the fourth embodiment, col. 38 lines 66-67) a method of manufacturing an image display medium, the method comprising the steps of:

(Claim 6)

- after the step of disposing the plurality of color material particles, the step of removing an excess of the color material particles with a blade 100.

However, the first and fourth embodiments do not specifically disclose that the at least one spacer fixes the substrates to one another.

It is well known and conventional in the art for using at least one spacer to fix the substrates to one another for supporting and maintaining a cell gap between the substrates.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a method of manufacturing an image display medium as Kamio et al. (the first and fourth embodiments) disclosed with at least one spacer to fix the substrates to one another for supporting and maintaining a cell gap between the substrates.

Response to Arguments

Applicant's arguments filed on Nov. 21, 2003 have been fully considered but they are not persuasive.

Applicant's ONLY arguments are follow:

1) Kamino fails to disclose "*while maintaining a predetermined amount of the plurality of color material particles distributed on the at least one of the substrate, superimposing another of the substrates thereon*" (page 11 lines 14-18).

2) Kamino fails to disclose, "*the plurality of color material particles are disposed between the substrates"* as recited in claim 12.

3) Kobyashi et al. (Fig. 4) fail to disclose "*while maintaining a predetermined amount of the plurality of color material particles distributed on the at least one of the substrate, superimposing another of the substrates such that substantially no color material particle are disposed on a surface of the at least one spacer opposing another of the substrates*" (page 12 line 24 to page 13 line 2).

4) Kobyashi et al. (Fig. 4) disclose "the ink 22 and 16 (and hence particles) on the surface of spacer 24 opposing one of the substrates". Therefore, Kobyashi et al. fail to disclose "*no color material particles are disposed on a surface of the at least one spacer opposing one of the substrates*" cited in claim 7.

5) Gamaguchi filed on August 29, 2001 is after the priority filed on Feb. 19, 2001.

Examiner's responses to Applicants' ONLY arguments are follow:

1) Kamino teaches (col. 46, line 53 to col. 48, line 24) how to maintain the predetermined amount of the plurality of color material particles distributed on one of the substrates, and to superimpose another substrate thereon.

Note the rejection to claims 1 and 7, which indicates that the disclosure fails to sufficiently support this recitation; however, according to various embodiments as shown in different figures, e.g., in figures 3A-B, the predetermined amount of the plurality of color material particles distributed on one of the substrates, than in fig. 3C the black particles and the white particles attached on an upper surface of the spacer are removed by a blade 18 after the state shown in FIG. 3B in which the black particles and the white particles are attached on the first substrate; and lastly in fig. 3D the second substrate is superimposed thereon to construct an image display medium. Therefore, the second substrate can't not be superimposed while the plurality of color material particles are distributing on one of the substrates as alleged and claimed by the Applicant.

2) Kamino discloses in Fig. 16 that the plurality of color material particles formed of different color filters 125 (R/B/G) are disposed between the substrates 122a and 122b.

3) Kobyashi et al. (Figs. 1&4) disclose how to maintain the predetermined amount of the plurality of color material particles distributed on one of the substrates, and to superimpose another substrate thereon. Also see response 1 above.

4) Kobyashi et al. (Fig. 4) disclose the ink 22 and 16 comprising the solvents 14/20 and the colored particles 12&18 as Fig. 1 disclosed with details; wherein the solvent 20 is on the surface of spacer 24 opposing one of the substrates, but the color particles18 is not on the surface of spacer 24 opposing one of the substrates as recited in claim 7.

5) Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Julie-Huyen L. Ngo whose telephone number is (571) 272-2295. The Examiner can normally be reached on T-Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. Robert H. Kim can be reached at (571) 272-2293.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1562.

April 4, 2004

Julie Huyen L. Ngo
Patent Examiner
Art Unit 2871